**Navy Advancement Center**
**Web site: http://www.cnet.navy.mil/netpdtc/nac/neas.htm**

# Advancement Handbook for Sonar Technician (SUBMARINE)

**This Advancement Handbook was last revised in: September 1998**

# PREFACE

The purpose of this Advancement Handbook is to help you focus your preparation for Navywide advancement-in-rating examinations. It is divided into four major "parts" and one appendix. The four major parts, representing paygrades E4 through E7, list the general skill areas on which you may be tested and the specific topics on which the test questions may be based. The appendix, a bibliography divided by paygrade, lists the publications from which the test questions may be drawn. Use the information from the four "parts" to help guide yourself through the bibliography. By doing this, you will be able to concentrate your studying on the areas that may be tested and get the most out of your limited study time.

Keep in mind that the four "parts" are cumulative; that is, you are responsible for the skills assigned to the paygrade you are testing for, as well as the skills assigned to your present paygrade and all paygrades below. If you are tested on skills and knowledges from lower paygrades, it will be at the level of the paygrade for which you are testing. For example, if the topic is "maintenance test", an **STS3** candidate might be asked questions about how to **perform** the test, an **STS2** candidate might be asked about the **requirements** for the test, an **STS1** candidate might be asked about how to **document** the test, and an **STSC** candidate might be asked about how to **write the test procedure**.

Keep in mind, as you prepare for the exam, that the exam is designed to test your **knowledge of your profession**. You gain professional knowledge by doing your job, completing your **qualifications cards**, and **studying the references associated with your rating.** The best way you can prepare for an advancement exam is to:

1. Learn as much as you can about your job. **Complete as much and as many of your qualification cards as possible.** Know as much about the construction and operation of your equipment as you can. Continually ask questions. Find out not only what happens, but why it happens and what to do if it doesn't happen as expected. Make this a continuing process.

2. As soon as the bibliography for the exam you plan to take is available, get a copy and start reviewing the references listed on it. Don't try to memorize the information the references contain. Use that information to "sharpen" the knowledge and skills you already have.

Finally, remember that advancement competition is keen, so your keys to advancement include not only comprehensive advancement examination study but also sustained superior performance.

Prepared by

Naval Education and Training Professional
Development and Technology Center

**CONTENTS**

# Part 1

# Advancement Handbook for STS3

# ADVANCEMENT HANDBOOK FOR STS3

| GENERAL SKILL AREA | EXAM EXPECTATIONS |
|---|---|
| **A. SONAR OPERATIONS** | |
| Line up installed sonar equipment to detect and track sonar contacts | • Perform sonar operational checks<br>• Explain theory of equipment operation<br>• Conduct searches for sonar contacts<br>• Track sonar contacts with installed equipment<br>• Obtain water depth soundings<br>• Change patch panel inputs and outputs<br>• Obtain sonar equation data<br>• . |
| **B. TARGET MOTION ANALYSIS** | |
| Provide data to fire control for the fire control solution | • Determine contact bearing<br>• Convert true bearings to relative bearings<br>• Convert relative bearings to true bearings<br>• Determine contact aspect<br>• Determine contact course and speed<br>• Calculate contact angle on the bow<br>• Determine sonar contact ranges<br>• Compute range rate<br>• Provide time frequency plot data to fire control<br>• Determine closest point of approach<br>• Identify sonar contact maneuvers<br>• Collect antisubmarine warfare weapons firing data |

| GENERAL SKILL AREA | EXAM EXPECTATIONS |
|---|---|
| **C. TARGET CLASSIFICATION** | |
| Identify the difference between surface and submerged contacts, both threat and non-threat | • Perform basic contact classification aurally and with installed sonar equipment<br>• Obtain a turn count aurally and with installed sonar equipment<br>• Identify transient noises<br>• Identify changes in contact operating modes (engine rpm, speed, echo ranging, depth changes)<br>• Detect acoustic jamming and evasive devices |
| **D. SOUND VELOCITY PROFILE** | |
| Obtain, record, and interpret sound velocity profiles | • Launch submarine expendable bathythermograph (SSXBT)<br>• Enter sound velocity profile (SVP) data into auxiliary equipment<br>• Determine propagation paths of underwater sound<br>• Detect ocean environmental changes |
| **E. ACOUSTIC DATA PACKAGES** | |
| Collect and package acoustic data | • Log sonar contacts<br>• Make sonar tape recordings<br>• Annotate grams, charts, and recordings<br>• Package data for mailing |
| **F. BASIC ELECTRONICS** | |
| Isolate electronic circuits | • Electrical safety precautions<br>• Electrical tagout procedures<br>• Basic analog theory<br>• Basic digital theory<br>• Basic test equipment usage (to include meggars, voltmeters, frequency counters, and oscilloscopes) |

| GENERAL SKILL AREA | EXAM EXPECTATIONS |
|---|---|
| **G. NOISE REDUCTION** | |
| Maintain ownship's noise reduction program | • Update ownship's radiated noise and equipment line-up libraries<br>• Inspect isolation components and ground straps<br>• Inspect damping material<br>• Perform isolation surveys<br>• Conduct housekeeping surveys |
| **H. TOWED ARRAY OPERATIONS** | |
| Deploy and retrieve installed towed arrays under all scenarios | • Perform normal towed array deployment<br>• Perform normal towed array retrieval<br>• Perform loss of flushing water towed array deployment<br>• Perform loss of hydraulics towed array deployment and retrieval<br>• Perform loss of electrical towed array retrieval and deployment<br>• Clean and inspect installed towed array handling group<br>• Lubricate installed array handling group |

# Part 2

# Advancement Handbook for STS2

# ADVANCEMENT HANDBOOK FOR STS2

| GENERAL SKILL AREA | EXAM EXPECTATIONS |
|---|---|
| **A. ASW OPERATIONS** | |
| Search, detect, and track sonar contacts | • Determine optimum sonar suite line-up<br>• Determine best search area<br>• Determine best search depth<br>• Determine best depth to avoid detection<br>• Determine best area to avoid detection<br>• Determine best evasion depth<br>• Recommend tactical maneuvers to the Conn |
| **B. TACTICAL OCEANOGRAPHY** | |
| Analyze tactical oceanographic data and meteorological data | • Interpret sound velocity profile<br>• Explain the theory of physics of sound<br>• Explain the tactical use of fronts and eddies |
| **C. CONTACT CLASSIFICATION** | |
| Analyze target data and match with intelligence information to discern contact classification | • Analyze gram contact data<br>• Analyze acoustic intercept data<br>• Check intelligence data for possible threats<br>• Correlate contacts with intelligence data<br>• Assign priorities to sonar contacts |
| **D. SONAR AND FIRE CONTROL COORDINATION** | |
| Coordinate data between fire control and sonar to help solve for weapons firing solution | • Analyze underwater fire control systems contact data<br>• Analyze plots, charts, and recorded data<br>• Interpret ASW weapons firing data |

| GENERAL SKILL AREA | EXAM EXPECTATIONS |
|---|---|
| **E. ACOUSTIC DATA PACKAGES** | |
| Prepare acoustic data packages for shipment | • Properly mark acoustic data package for shipment<br>• Properly pack acoustic data package for shipment<br>• Properly number acoustic data package enclosures |
| **F. NOISE REDUCTION** | |
| Conduct the maintenance on own ship's noise reduction program | • Conduct radiated noise surveys<br>• Identify characteristics and sources of self noise<br>• Obtain baseline acoustic data<br>• Update baseline acoustic data<br>• Obtain own ship's cavitation curves<br>• Update own ship's cavitation curves<br>• Conduct sound short isolation diagnostics |
| **G. ELECTRONICS** | |
| Isolate and repair faulty digital and analog electronics | • Inspect electrical hull fittings<br>• Perform mainframe computer and peripheral diagnostic test<br>• Troubleshoot synchro/servo resolver systems<br>• Troubleshoot electrical and electronic cables and wiring<br>• Replace and /or repair electronic connectors<br>• Replace electrostatic discharge (ESD) sensitive components<br>• Troubleshoot and replace analog electronic components |
| **H. SONAR SEARCH PLANS** | |
| Prepare and/or update sonar search plans | • Prepare a sonar search plan using the SFMPL desk top program<br>• Update sonar search plan while on station |

# Part 3

# Advancement Handbook for STS1

# ADVANCEMENT HANDBOOK FOR STS1

| GENERAL SKILL AREA | EXAM EXPECTATION |
|---|---|
| **A. ASW OPERATIONS** | |
| Supervise ASW operations | • Conduct ASW attacks as a sonar supervisor<br>• Conduct ASUW attacks as a sonar supervisor<br>• Recommend tactical employment of towed arrays<br>• Recommend procedures to reduce own ship's detectability |
| **B. MAINTENANCE** | |
| Supervise sonar equipment maintenance | • Qualify as departmental 3-M assistant (305)<br>• Review Q.A. packages for completeness<br>• Plan a Shipyard Restricted Availability (SRA) Maintenance period for sonar division |
| **C. NOISE REDUCTION** | |
| Analyze and correct noise discrepancies | • Analyze acoustic discrepancy data<br>• Coordinate correction of acoustic discrepancies<br>• Analyze own ship's cavitation curve data for discrepancies |
| **D. TECHNICAL ADMINISTRATION** | |
| Maintain divisional logs, records, and message traffic | • Prepare sonar division short range training plan<br>• Prepare sonar division long range training plan<br>• Prepare sonar messages<br>• Interpret sonar messages |

# Part 4

# Advancement Handbook for STSC

| GENERAL SKILL AREA | EXAM EXPECTATIONS |
|---|---|
| **A. ASW OPERATIONS** | |
| Test, evaluate, and recommend changes to new and existing sonar doctrine. | • Evaluate operational tests of new sonar equipment<br>• Evaluate onboard trainer exercises<br>• Evaluate experimental ASW doctrine<br>• Recommend changes to ASW doctrine |

## Appendix 1

## References Used in This Advancement Handbook

| Rating | Short Title | Long Title | Stocking Point |
|---|---|---|---|
| **STS3** | ACINT NEWSLETTER/002-91 | ACINT NEWSLETTER | Note 9 |
| | ACINT NEWSLETTER/003-94 | ACINT NEWSLETTER | Note 9 |
| | CINCLANTFLT/ CINCPACFLTINST 4790.3 | JOINT FLEET MAINTENANCE MANUAL | Note 5 |
| | DORA MANUAL | DORA SYSTEM PROCEDURES MANUAL-FORMATTED LOGS | Note 9 |
| | DST 1220S-092-94 | ACOUSTIC CHARACTERISTICS OF DIESEL SUBMARINES OF SELECTED FOREIGN COUNTRIES | Note 9 |
| | DST 1220H-161-92 | SUBMARINE CHARACTERISTICS OF SELECTED EASTERN EUROPEAN AND ASIAN COUNTRIES | Note 9 |
| | DST 1220S-460-87 | ACOUSTIC CHARACTERISTICS OF SOVIET SUBMARINES, TYPE 1 NUCLEAR | Note 9 |
| | DST 1220S-461-90 | ACOUSTIC CHARACTERISTICS OF SOVIET SUBMARINES, TYPE 2&3 NUCLEAR | Note 9 |
| | DST 1220S-462-90 | ACOUSTIC CHARACTERISTICS OF SOVIET SUBMARINES, TYPE 4&5 NUCLEAR | Note 9 |

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| | DST 1220S-465-92 | ACOUSTIC CHARACTERISTICS OF SOVIET SUBMARINES, TYPE 6&7 | Note 9 |
| | DST 1220S-646-93 | ACOUSTIC CHARACTERISTICS OF CIS SUBMARINES, TYPE 1 thru 4 DIESEL | Note 9 |
| | DST 1260S-084-94 | IN-WATER ACOUSTIC CHARACTERISTICS OF RUSSIAN MISSILES, COUNTER-MEASURES, AND TORPEDOES | Note 9 |
| | SE000-01-1MB-010 | ELECTRONICS INSTALLATION & MAINTENANCE BOOK- ELECTRONIC CICUITS | Note 1 |
| | SE000-01-1MB-010 | ELECTRONICS INSTALLATION & MAINTENANCE BOOK- GENERAL MAINTENANCE | Note 1 |
| | NAVEDTRA 12043 | MILITARY REQUIREMENTS, BASIC | Note 1 |
| | NAVEDTRA 12044 | MILITARY REQUIREMENTS FOR PETTY OFFICER THIRD CLASS | Note 1 |
| | NAVEDTRA 12486 | SONAR TECHNICAN S 3 & 2 | Note 1 |
| | NAVEDTRA B72-01-00-92 | INTRODUCTION TO MATTER,ENERGY, AND DIRECT CURRENT (NEETS MOD 1) | Note 1 |

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| | NAVEDTRA B72-13-00-94 | INTRODUCTION TO NUMBER SYSTEMS AND LOGIC CIRCUITS (NEETS MOD 13) | Note 1 |
| | NAVEDTRA B72-16-00-96 | INTRODUCTION TO TEST EQUIPMENT (NEETS MOD 16) | Note 1 |
| | NIC-1200G-001-91 | ACINT COLLECTION GUIDE | Note 9 |
| | NIC-SXAP-001-91 | ACINT NEWSLETTER 1-91 | Note 9 |
| | NIC-SXAP-001-92 | ACINT NEWSLETTER 1-92 | Note 9 |
| | NIC-SXAP-001-93 | ACINT NEWSLETTER 1-93 | Note 9 |
| | NIC-SXAP-002-91 | ACINT NEWSLETTER 2-91 | Note 9 |
| | NIC-SXAP-002-92 | ACINT NEWSLETTER 2-92 | Note 9 |
| | NWP 1-01 | THE NAVAL WARFARE PUBLICATION SYSTEM | Note 2 |
| | NWP 1-10.22 VOL. 1 | PASSIVE ACOUSTIC CLASSIFICATION REFERENCE MANUAL | Note 2 |
| | NWP 1-10.22 VOL. 2 | PASSIVE ACOUSTIC CLASSIFICATION REFERENCE MANUAL (POCKET GUIDE) | Note 2 |
| | NWP 1-10.2 VOL. 1 | PRINCIPLES OF LOFARGRAM ANALYSIS VOL 1 | Note 2 |
| | NWP 10.2 VOL. 2 | PRINCIPLES OF LOFARGRAM ANALYSIS VOL 2 | Note 2 |
| | NWP 1-10.26 | SIGNATURE CATALOG:CIS DIESEL AND NUCLEAR SUBMARINES | Note 2 |

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| | NWP 1-10.21 | FOREIGN SUBMARINE DATA HANDBOOK | Note 2 |
| | NWP 3-21.21 | SUBMARINE APPROACH AND ATTACK MANUAL | Note 2 |
| | NWP 3-21.23 | SUBMARINE TRACKING MANUAL | Note 2 |
| | NWP 3-21.51.2 | TOWED ARRAY TARGET MOTION ANALYSIS TECHNIQUES | Note 2 |
| | NWP 3-21.61.1 | AN/BSY-1(v) ACOUSTIC SUBSYSTEM OPERATIONAL DESCRIPTION | Note 2 |
| | NWP 3-21.61.2 | AN/BSY-1(v) ACOUSTIC SUBSYSTEM OPERATING GUIDELINES | Note 2 |
| | NWP 3-21.64.1 | AN/WLR-9A AND AN/WLR 12 OPERATING GUIDELINES | Note 2 |
| | NWP 3-21.69.1 | SUBMARINE SONAR REFERENCE MANUAL | Note 2 |
| | NWP 3-21.69.2 | SUBMARINE ACOUSTIC DATA MANUAL | Note 2 |
| | NWP 3-54.1 | SUBMARINE TACTICAL SECURITY MANUAL | Note 2 |
| | NWP 3-59.1 | TACTICAL USE OF THE OCEAN ENVIROMENT | Note 2 |
| | NWP 3-59.2 | SUBMARINE ARTIC OPERATIONS MANUAL | Note 2 |
| | NWP 3-21.51.1 | TARGET MOTION ANALYSIS TECHNIQUES | Note 2 |

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| | NWP 3-21.22.1 | AN/BQQ-5 SONAR EMPLOYMENT MANUAL | Note 2 |
| | NWP 3-21.22.2 | AN/BQQ-6 SONAR EMPLOYMENT MANUAL | Note 2 |
| | NWP 3-21.22.3 | AN/BYS-1(v) ACOUSTIC SUBSYSTEM EMPLOYMENT MANUAL | Note 2 |
| | NWP 3-21.61.03 | AN/BQQ-6 OPERATING GUIDELINES | Note 2 |
| | NWP 3-21.65.1 | AN/BQS-15 OPERATING GUIDELINES | Note 2 |
| | NWP 3-21.65.2 | AN/BQS-14A OPERATING GUIDELINES | Note 2 |
| | NWP 3-21.61.08 | AN/BQQ-5D SYSTEM OPERATIONAL DESCRIPTION | Note 2 |
| | NWP 3-21.62.1 | AN/BQR-23A(V)3(EC-8) AND TB-23/BQ OPERATING GUIDELINES | Note 2 |
| | NWP 3-21.63.1 | AN/BQR-20A AND AN/ BQR-22 OPERATING GUIDELINES | Note 2 |
| | NWP 3-21.64.2 | AN/WLR-9A(EC-9) AND AN/WLR-9B(V)2(EC-8) OPERATING GUIDELINES | Note 2 |
| | ONI-1200S-001-94 | ACINT NEWSLETTER 1-94 | Note 9 |
| | ONI-1200S-003-94 | ACINT NEWSLETTER 3-94 | Note 9 |
| | ONI-1200S-005-94 | ACINT NEWSLETTER 5-94 | Note 9 |

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| | OPNAVINST 4790.4 | SHIPS' MAINTENANCE AND MATERIAL MANAGEMENT (3-M) MANUAL | Note 6 |
| | OPNAVINST 5510.1 | DEPARTMENT OF THE NAVY INFORMATION AND PERSONNEL SECURITY PROGRAM REGULATION MANUAL | Note 6 |
| | RP 33 | FLEET OCEANOGRAPHIC AND ACOUSTIC REFERENCE MANUAL | Note 3 |
| | NAVSEA S9073-AR-PNM-010/(C) SSN-688CL | PLATFORM NOISE MONITORING ANALYSIS FOR NOISE REDUCTION ON LOS ANGELES CLASS SUBMARINES | Note 1 |
| | NAVSEA S9073-AS-PNM-101/(C) | PLATFORM NOISE MONITORING ANALYSIS FOR NOISE REDUCTION | Note 1 |
| | NAVSEA S9073-AW-SNC-010 | SHIP ACOUSTICAL SURVEYS | Note 1 |
| | SE610-AW-MMA-010 UYK-7 | UYK-7 TECHNICAL MANUALS | Note 1 |
| | TM SZ5561-1-94 | SSN ANTI-DIESEL APPROACH & ATTACK SUPPLEMENT | Note 4 |
| | TN FZ1461-5-93 | AN/BQQ-5E SYSTEM OPERATIONAL DESCRIPTION | Note 4 |
| | TN FZ1461-6-93 | AN/BQQ-5E OPERATING GUIDELINES | Note 4 |

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| | TN FZ1462-1-89 | AN/BQQ-9 & AN/BQR-15(9080) OPERATING GUIDELINES | Note 4 |
| | TN FZ1465-1-91 | SSBN 726 CLASS AN/BQR-23A(V)2(EC-7) & AN/BQR-15(9080) OPERATING GUIDELINES | Note 4 |
| | TN XZ1863-1-91 | TACTICAL CONSIDERATIONS FOR LOW-FREQUENCY ACTIVE ACOUSTIC (LFAA) SONAR SYSTEMS | Note 4 |
| **STS2** | ATP 18(D) | ALLIED MANUAL OF SUBMARINE OPERATIONS | Note 1 |
| | ATP 28(A) | ALLIED ANTISUBMARINE WARFARE MANUAL | Note 1 |
| | CSL/CSPINST. C3500.1 | COMSUBLANT COMSUB PAC JOINT TRAINING MANUAL | Note 7 |
| | FXP 1 | ANTISUBMARINE WARFARE (ASW) EXERCISES | Note 2 |
| | NAVEDTRA 12045 | MILITARY REQUIREMENTS FOR PETTY OFFICER SECOND CLASS | Note 1 |
| | NAVSUP P-485 | FORCES AFLOAT SUPPLY PROCEDURES | Note 1 |
| | NAVEDTRA B72-02-00-91 | INTRODUCTION TO ALTERNATING CURRENT AND TRANSFORMERS (NEETS MOD 2) | Note 1 |

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| | NAVEDTRA B72-03-00-93 | INTRODUCTION TO CIRCUIT PROTECTION, CONTROL, AND MEASUREMENTS (NEETS MOD 3) | Note 1 |
| | NAVEDTRA B72-04-00-92 | INTRODUCTION TO ELECTRICAL CONDUCTORS, WIRING TECHNIQUES AND SCHEMATIC READING (NEETS MOD 4) | Note 1 |
| | NAVEDTRA B72-05-00-94 | INTRODUCTION TO GENERATORS AND MOTORS (NEETS MOD 5) | Note 1 |
| | NAVEDTRA B72-06-00-92 | INTRODUCTION TO ELECTRONIC EMISSION, TUBES, AND POWER SUPPLIES (NEETS MOD 6) | Note 1 |
| | NAVEDTRA B72-07-00-92 | INTRODUCTION TO SOLID-STATE DEVICES AND POWER SUPPLIES (NEETS MOD 7) | Note 1 |
| | NAVEDTRA 172-08-00-82 | INTRODUCTION TO AMPLIFIERS (NEETS MOD 8) | Note 1 |
| | NAVEDTRA 172-09-00-83 | INTRODUCTION TO WAVE-GENERATION AND WAVE-SHAPING CIRCUITS (NEETS MOD 9) | Note 1 |
| | NAVEDTRA 172-12-00-83 | MODULATION PRINCIPLES (NEETS MOD 12) | Note 1 |
| | NAVEDTRA 172-14-00-84 | INTRODUCTION TO MIRCOELECTRONICS (NEETS MOD 14) | Note 1 |
| | NAVEDTRA B72-15-00-93 | PRINCIPLES OF SYNCHROS, | Note 1 |

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| | | SERVOS, AND GYROS (NEETS MOD 15) | |
| | NAVEDTRA B72-19-00-92 | THE TECHNICAN'S HANDBOOK (NEETS MOD 19) | Note 1 |
| | NAVEDTRA 172-20-00-85 | MASTER GLOSSARY AND INDEX (NEETS MOD 20) | Note 1 |
| | NAVEDTRA B72-21-00-87 | TEST METHODS AND PRACTICES (NEETS MOD 21) | Note 1 |
| | NAVEDTRA B72-22-00-88 | INDTRODUCTIONTO DIGITAL COMPUTERS (NEETS MOD 22) | Note 1 |
| | NAVEDTRA B72-23-00-91 | MAGNETIC RECORDINGS (NEETS MOD 23) | Note 1 |
| | NWP 3-21.22 | SUBMARINE SEARCH MANUAL | Note 2 |
| | NWP 3-21.53.3 | EVASION,PYROTEC H-NIC,AND SIGNAL DEVICES REFERENCE MANUAL | Note 2 |
| | NWP 3-15.27 | MINEFIELD DETECTION AND AVOIDANCE | Note 2 |
| | NWP 3-05.4 | NAVAL SPECIAL WARFARE SUBMARINE OPERATIONS MANUAL | Note 2 |
| | NTSA-FPL43-7 | USER'S GUIDE FOR THE HP-9020 SFMPL | Note 8 |
| | TM FZ1863-1-94 | ACOUSTIC DEVICE COUNTERMEASURE SET MK 4 MOD O MANUAL | Note 4 |
| | TM FZ1863-2-94 | ACOUSTIC DEVICE COUNTERMEASURE SET MK 3 MOD 0 MANUAL | Note 4 |
| **STS1** | NAVEDTRA 12046 | MILITARY REQUIREMENTS | Note 1 |

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| | | FOR PETTY OFFICER FIRST CLASS | |
| | NWP 1-03.1 | OPERATIONAL REPORTS | Note 2 |
| | NWP 3-21.65.4 | AN/BQS-15 (EC17) OPERATING GUIDELINES | Note 2 |
| **STSC** | NAVEDTRA 12047 | MILITARY REQUIREMENTS FOR CHIEF PETTY OFFICERS | Note 1 |
| | OPNAVINST 5100.19 | NAVY SAFETY PRECAUTIONS FOR FORCES AFLOAT | Note 6 |

NOTE 1 – To order, MILSTRIP to NAVICP PHILA or via INTERNET http://www.nll.navsup.navy.mil

NOTE 2 – To order, MILSTRIP to NAVICP PHILA or via NTIC Series B1 CD-ROMS' (See your command NWP Custodian)

NOTE 3 – National Imagery & Mapping Agency (NIMA), CATP2V01u

NOTE 4 – NTIC Series A CD ROM's (See your command NWP Custodian)

NOTE 5 – Via INTERNET http://www.submepp.navy.mil/PRODSERV.HTM

NOTE 6 – Via INTERNET http://www.nll.navsup.navy.mil or http://neds.nebt.daps.mil

NOTE 7 – Letter request to Commander, Submarine Force, U.S. Atlantic Fleet, 7958 Blandy Rd, Norfolk, Va. 23551-2492

NOTE 8 – Point-of-Contact: ComSubDevRon Twelve, DSN 241-3168

NOTE 9 – To order send Command letter to: Director, Office of Naval Intelligence, 4301 Suitland Road, Washington D.C. 20395-5000